

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BLACK MOUNTAIN POND	Lake Area (ha):	2.43
Town: SANDWICH	Maximum depth (m):	9.8
County: Carroll	Mean depth (m):	3.2
River Basin: Merrimack	Volume (m ³):	79000
Latitude: 43°52'59" N	Relative depth:	5.6
Longitude: 71°30'38" W	Shore configuration:	1.27
Elevation (ft): 2265	Areal water load (m/yr):	24.86
Shore length (m): 700	Flushing rate (yr ⁻¹):	7.70
Watershed area (ha): 88.1	P retention coeff.:	0.45
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

15 March 1995

27 July 1994

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 50%	DINOBRYON 95%
	#2	(ALL ALGAE SPARSE)	
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			0.55
DOM. ZOOPLANKTON (% TOTAL)	#1	CALANOID COPEPOD 86%	CALANOID COPEPOD 64%
	#2	KERATELLA 14%	NAUPLIUS LARVA 28%
	#3		KERATELLA 9%
ROTIFERS/LITER		10	8
MICROCRUSTACEA/LITER		64	86
ZOOPLANKTON ABUNDANCE (#/L)		74	94
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			9.8
BOTTOM DISSOLVED OXYGEN (mg/L)		3.5	6.0
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:Lake: **BLACK MOUNTAIN POND**Town: **SANDWICH**

	15 March 1995		27 July 1994		
DEPTH (m)	3.5	6.5	2.0	5.0	8.0
pH (units)	5.5	5.6	5.7	5.8	6.0
A.N.C. (Alkalinity)	1.2	1.8	0.3	0.5	1.0
NITRATE NITROGEN	< 0.10	< 0.10	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.10	0.22	0.12	0.16	0.19
TOTAL PHOSPHORUS	0.006	0.004	0.003	0.006	0.009
CONDUCTIVITY (μ mhos/cm)	20.6	21.8	17.6	17.7	18.2
APPARENT COLOR (cpu)	11	14	< 5	8	7
MAGNESIUM			0.28		
CALCIUM			1.3		
SODIUM			0.6		
POTASSIUM			0.23		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	5	5	5		5
TN : TP		55	40		21
CALCITE SATURATION INDEX			6.0		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1994

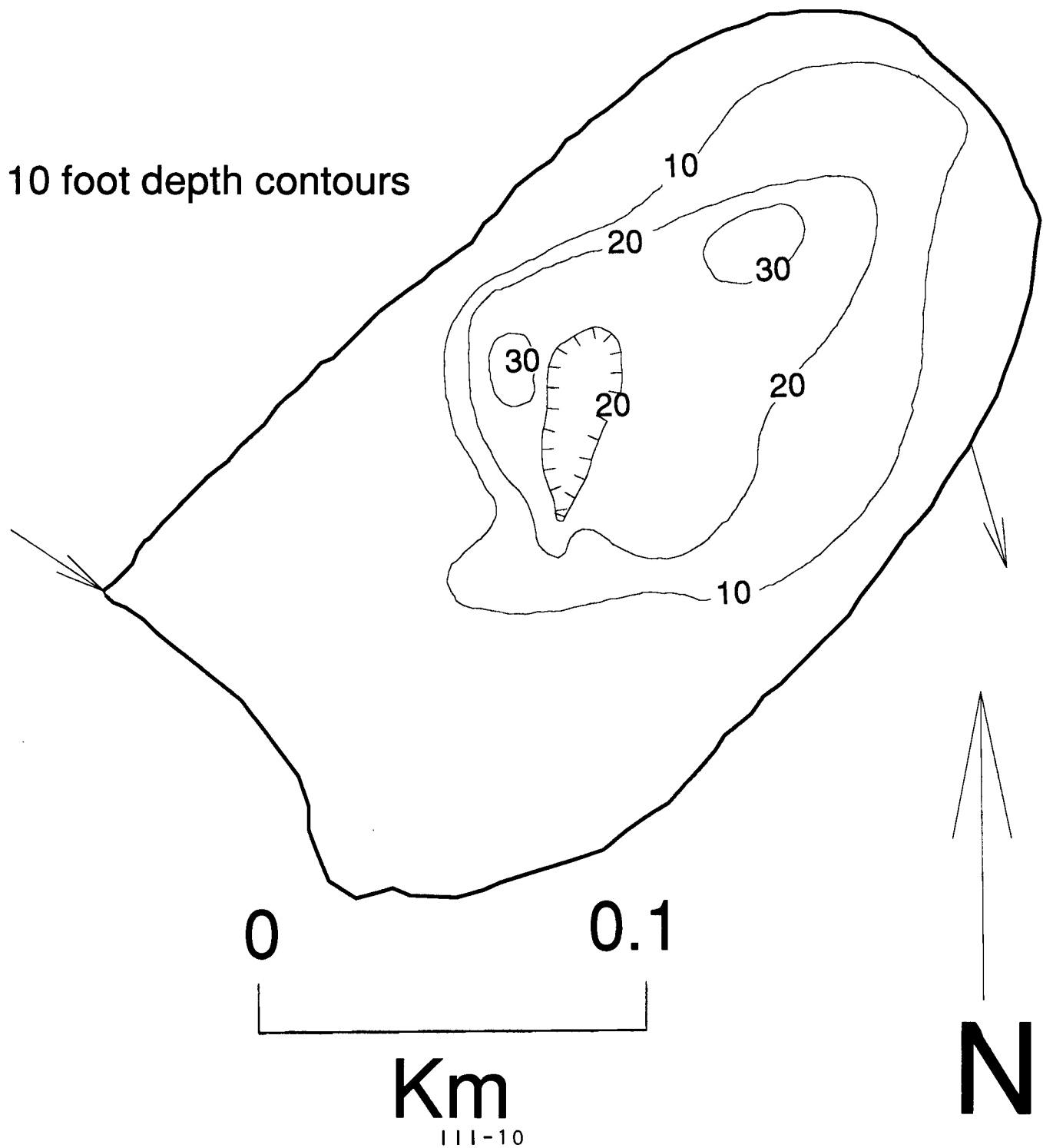
D.O. S.D. PLANT CHL TOTAL CLASS

**	0	3	0	3	Oligo.
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COMMENTS:

1. This is a remote mountain trout pond, located within the White Mountain National Forest, that was sampled jointly with the NH Fish and Game Department. It has been sampled annually since 1982 by helicopter for acid rain parameters as part of the Department's Acid Rain - Remote Ponds program.
2. This is a clear water, somewhat acidic, oligotrophic pond.
3. In both winter and summer, calanoid copepods were the dominant zooplankton and were healthy looking, full of reddish-orange fat globules.

Black Mountain Pond Sandwich



[illegible]

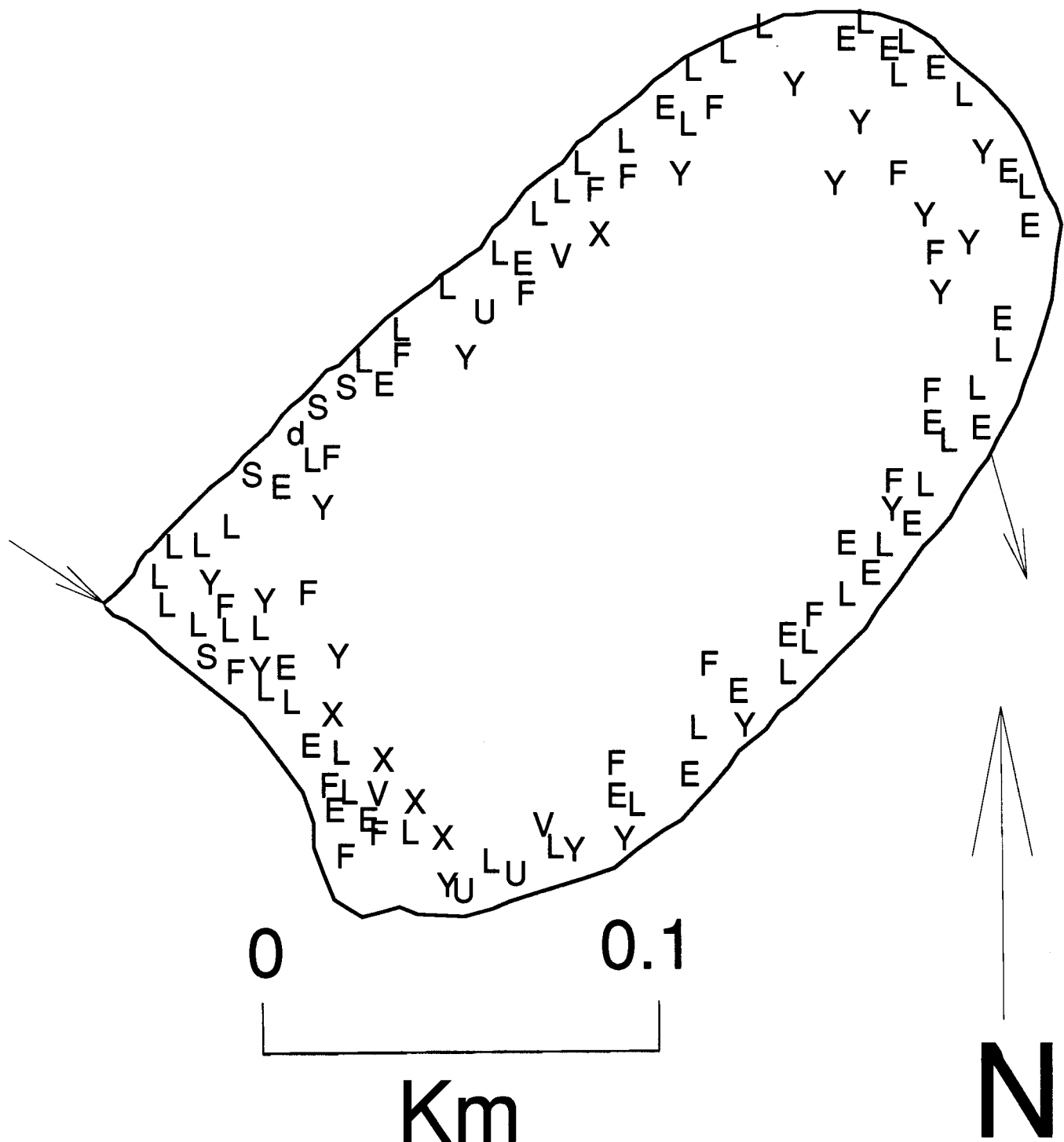
TOWN: SANDWICH
WEATHER: SUNNY & WINDY

[illegible]

COMMENTS: This pond was not thermally stratified despite a depth of 30+ feet. Clear water allows sun light penetration to the bottom (note: Secchi disk depth was at the bottom).

***Dissolved oxygen values are in mg/L**

Black Mountain Pond Sandwich



[illegible]